

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Ferula assa-foetida*

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|--------------------|------------------|---------|----------|---------------------|--|
| 11 | ALPHA-PHELLANDRENE | Essential Oil | -- | -- | | |
| 28 | ALPHA-PINENE | Seed Essent. Oil | -- | 14300 | -0.6432551188420427 | |
| 28 | ALPHA-PINENE | Essential Oil | -- | -- | | |
| 28 | ALPHA-PINENE | Gum | -- | 143000 | | |
| 23 | ALPHA-TERPINEOL | Seed Essent. Oil | -- | 127100 | 0.07775930700042463 | |
| 10 | AZULENE | Root | -- | -- | | |
| 13 | BETA-PINENE | Essential Oil | -- | -- | | |
| 4 | CADINENE | Essential Oil | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 3 | CYNAROSIDE | Fruit | -- | -- | | |
| 26 | DIALLYL-DISULFIDE | Essential Oil | -- | -- | | |
| 25 | DIALLYL-SULFIDE | Gum | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 25 | DIALLYL-SULFIDE | Essential Oil | -- | -- | | |
| 61 | FERULIC-ACID | Gum | -- | -- | | |
| 61 | FERULIC-ACID | Essential Oil | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-----------------|---------------------|---------|----------|---------------------|--|
| 61 | FERULIC-ACID | Resin, Exudate, Sap | 13000 | 13000 | | |
| 1 | FOETIDIN | Root | -- | 500 | | |
| 1 | FOETIDIN | Gum | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 1 | GALACTOSE | Gum | -- | -- | | |
| 1 | GALBANIC-ACID | Gum | -- | 20600 | | |
| 7 | GLUCOSE | Gum | -- | -- | | |
| 4 | GLUCURONIC-ACID | Gum | -- | -- | | |
| 15 | ISOPIMPINELLIN | Plant | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 27 | LINOLEIC-ACID | Seed | -- | 128000 | 0.17888309199536606 | |
| 78 | LUTEOLIN | Fruit | -- | -- | | |
| 6 | MYRISTIC-ACID | Seed Essent. Oil | -- | 212300 | 1 | |
| 18 | OLEIC-ACID | Seed | -- | 53000 | -0.5434090926367003 | |
| 4 | PHELLANDRENE | Seed Essent. Oil | -- | 54800 | | |
| 4 | PHELLANDRENE | Gum | -- | 64000 | | |
| 22 | UMBELLIFERONE | Gum | -- | -- | | |
| 22 | UMBELLIFERONE | Essential Oil | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|-----------------------|-----------------|-------------------|----------------|-----------------|---------------|--|
| 9 | VALERIC-ACID | Essential Oil | -- | -- | | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| 28 | VANILLIN | Plant | 600 | 600 | | |